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(54) **OPTIONAL HANGING DISPENSER**

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See application file for complete search history.

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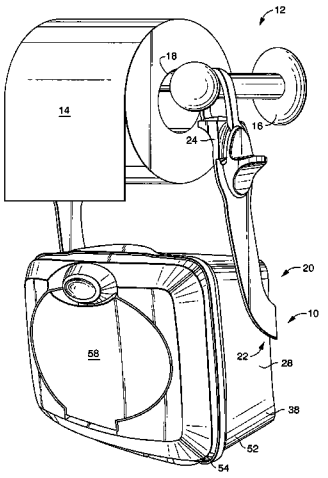
(57) **ABSTRACT**

A product for hanging from a paper roll holder having at least one arm including a sheet-material dispenser and at least one hanging member for attaching the sheet-material dispenser to the at least one arm. In one embodiment of the invention, the second end of the hanging member that is removably attachable to the arm of the paper roll holder included an elastomeric strap for wrapping about both arms of a toilet paper holder. Since the sheet-material dispenser is attached to the arms of the paper roll holder, it is not necessary to remove the sheet-material dispenser when removing the spindle of the paper roll holder to change the paper roll.

17 Claims, 9 Drawing Sheets



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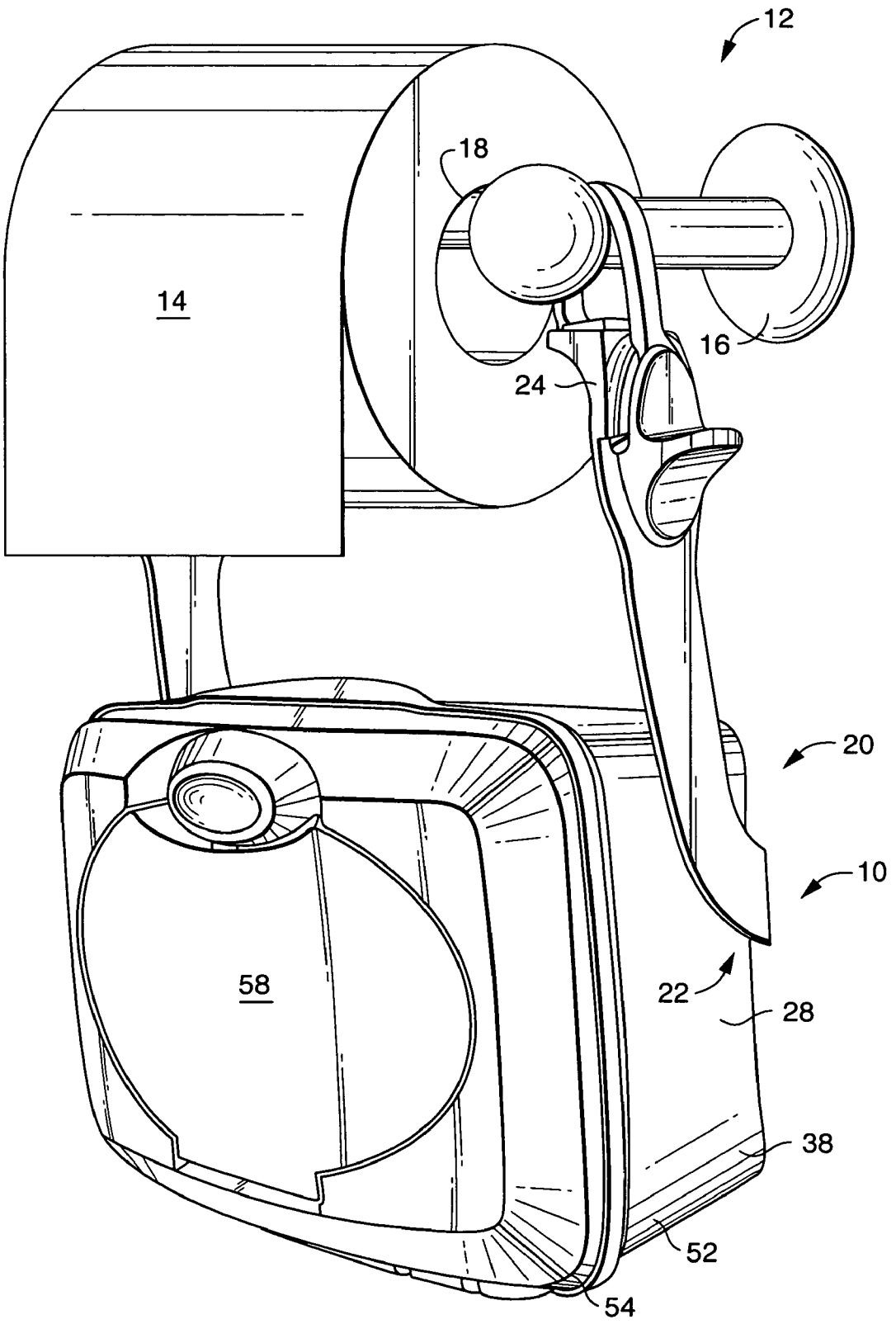

FIG. 1

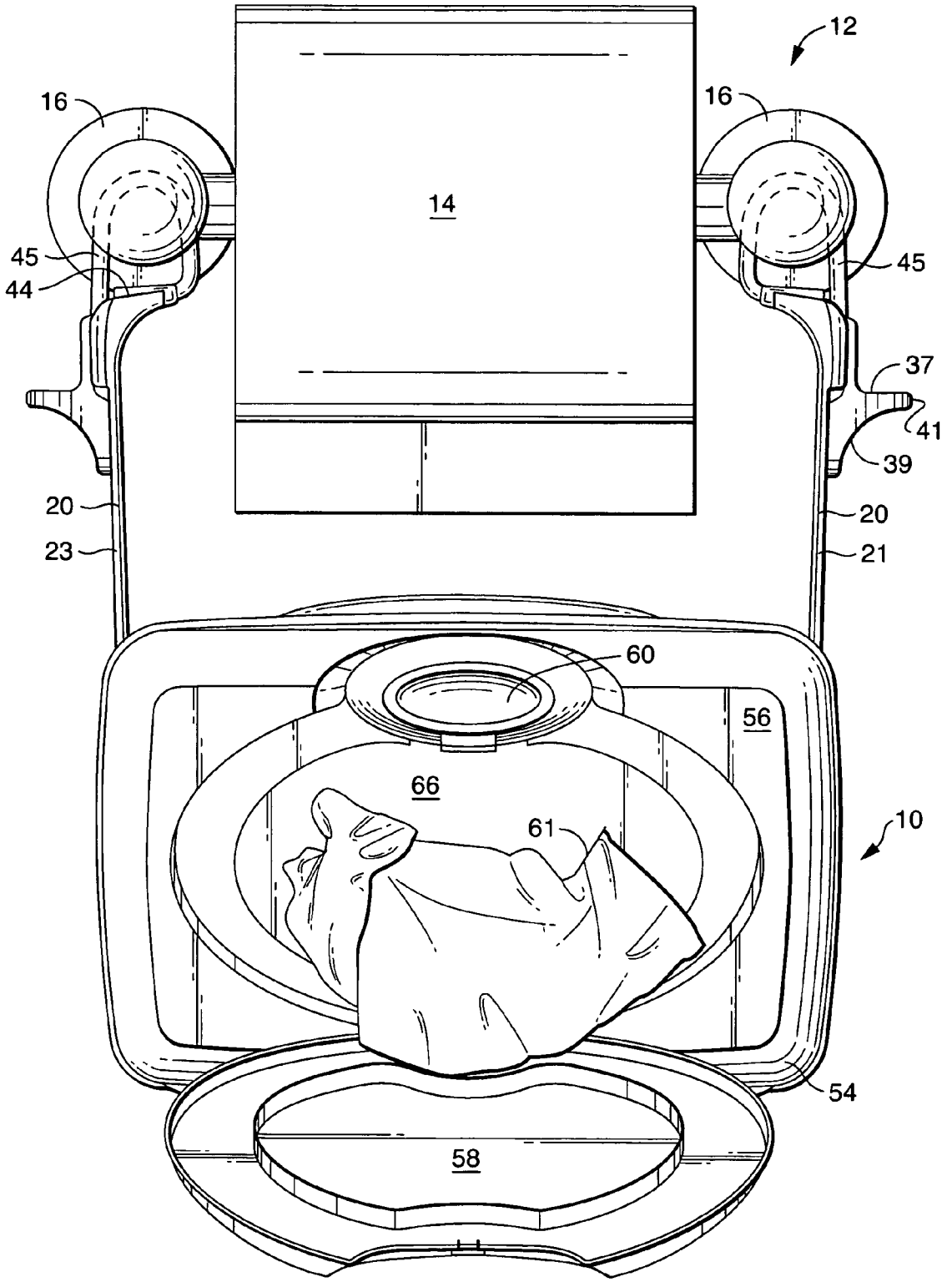

FIG. 2

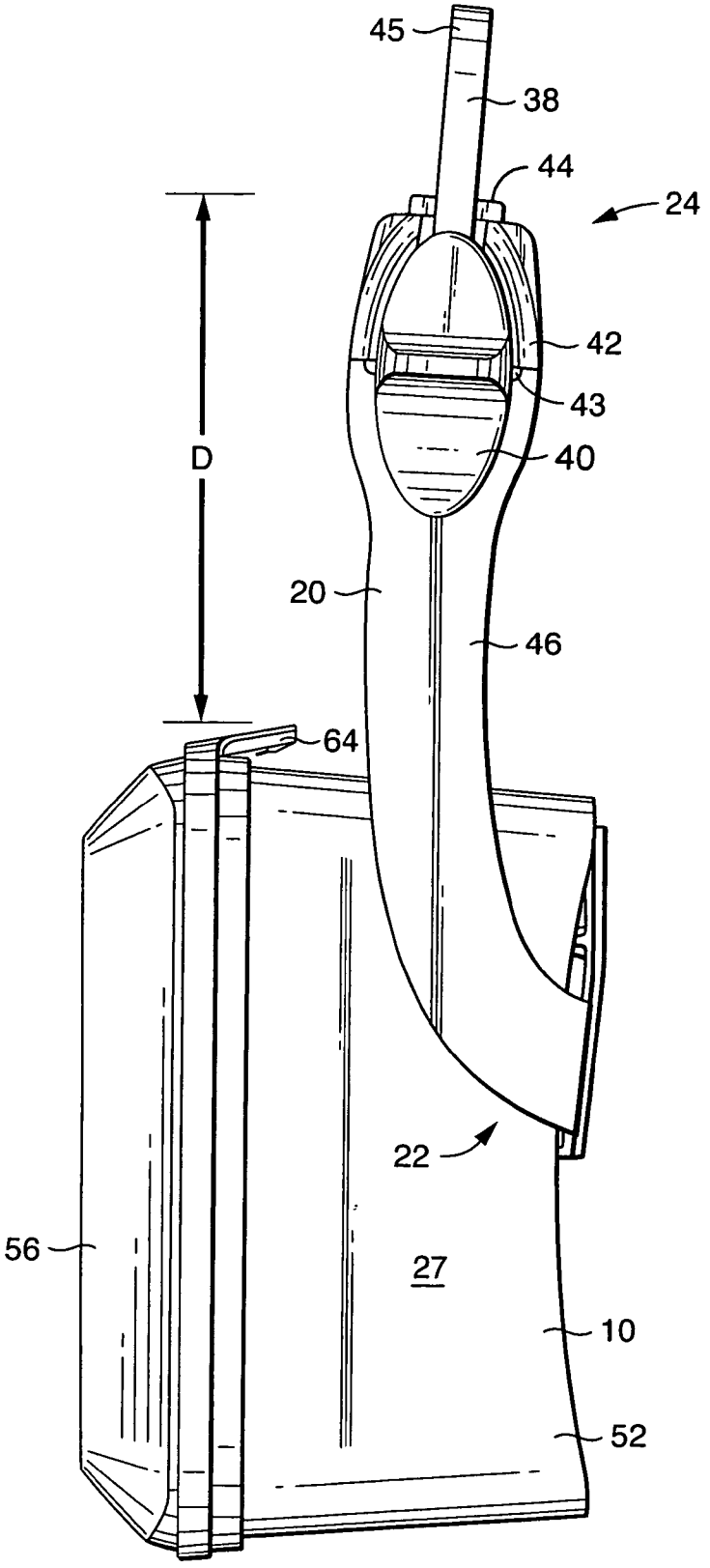

FIG. 3

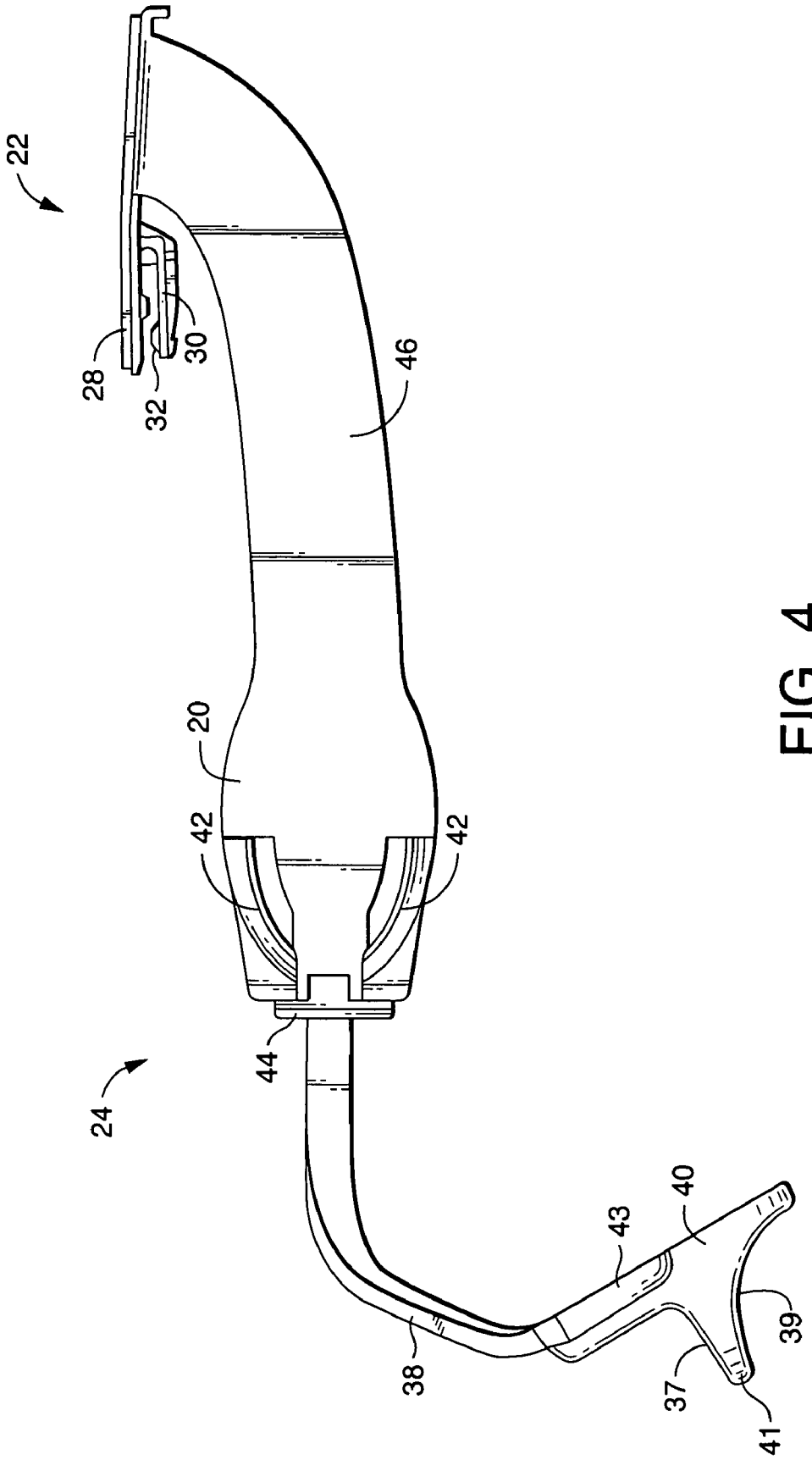

FIG. 4

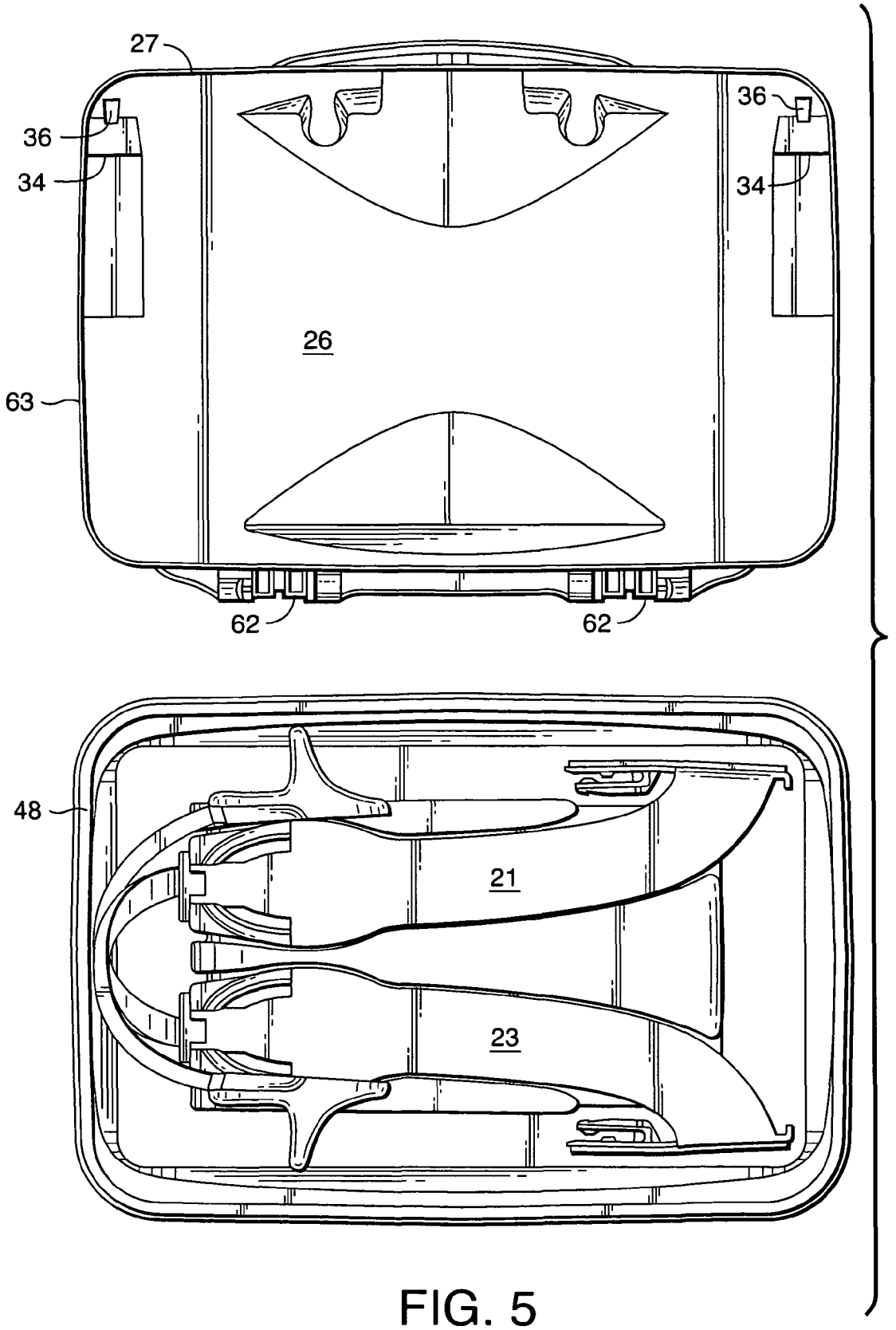

FIG. 5

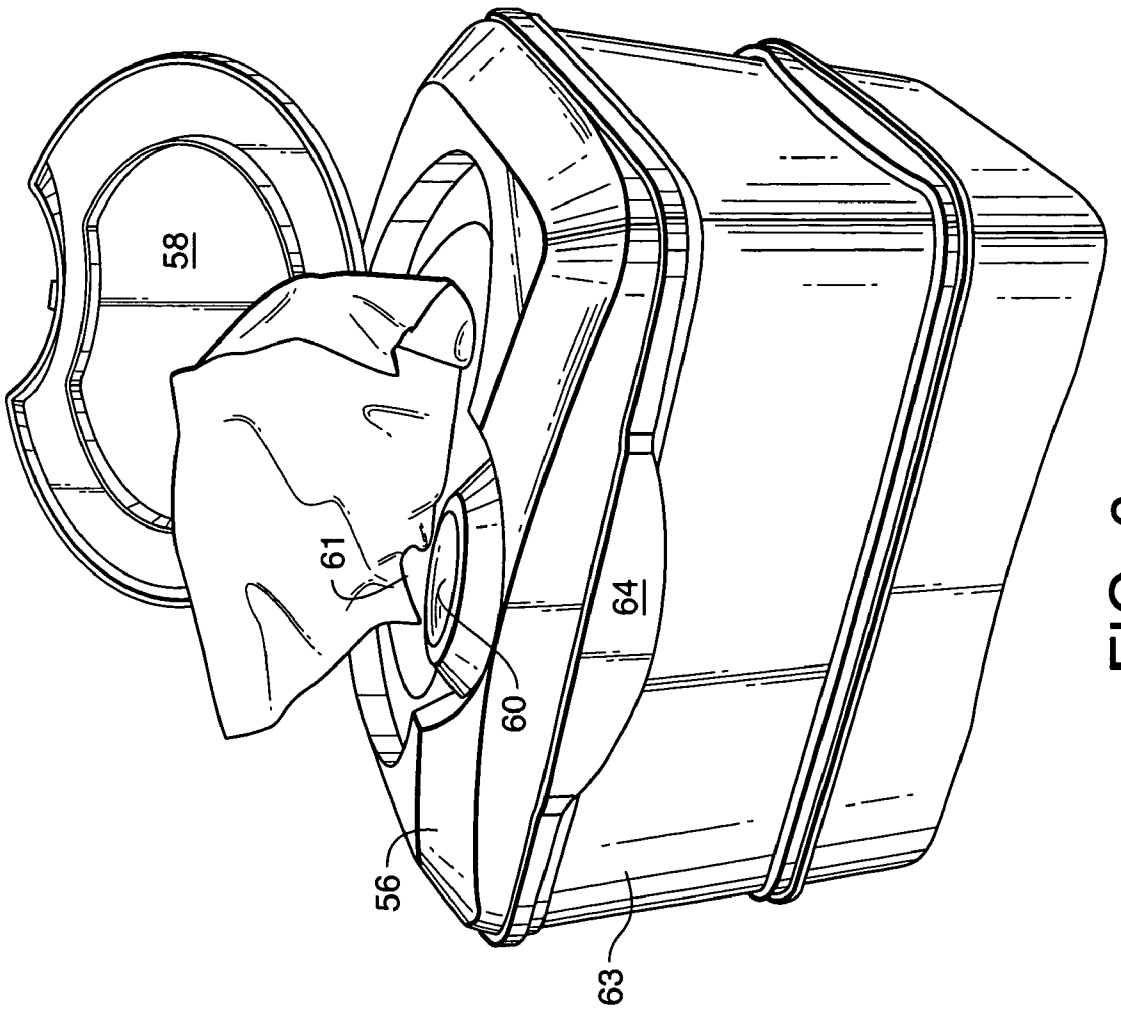

FIG. 6

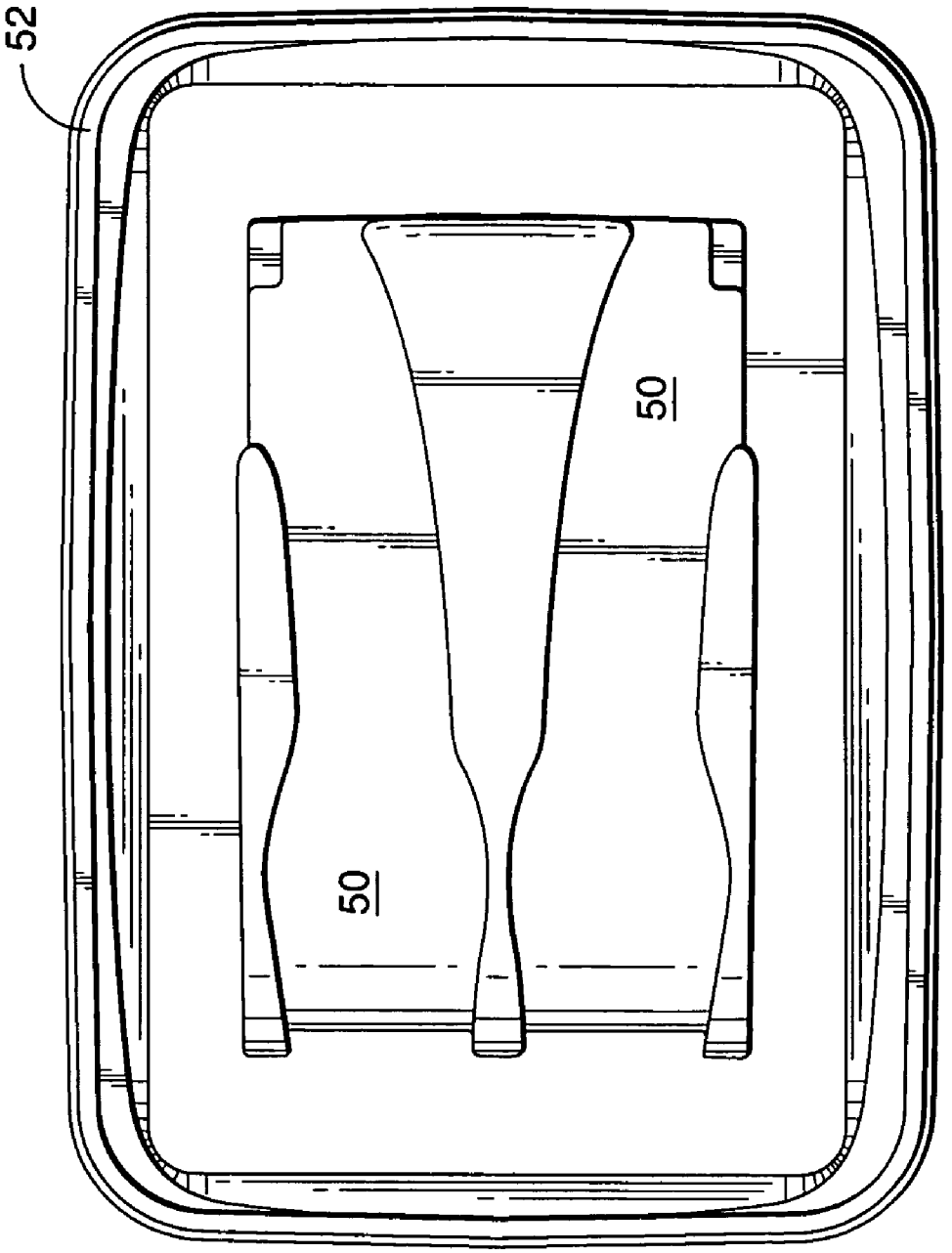

FIG. 7

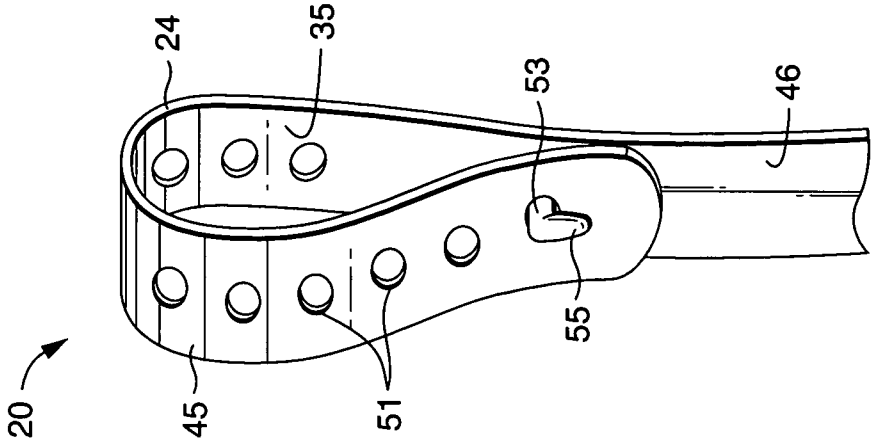

FIG. 8C

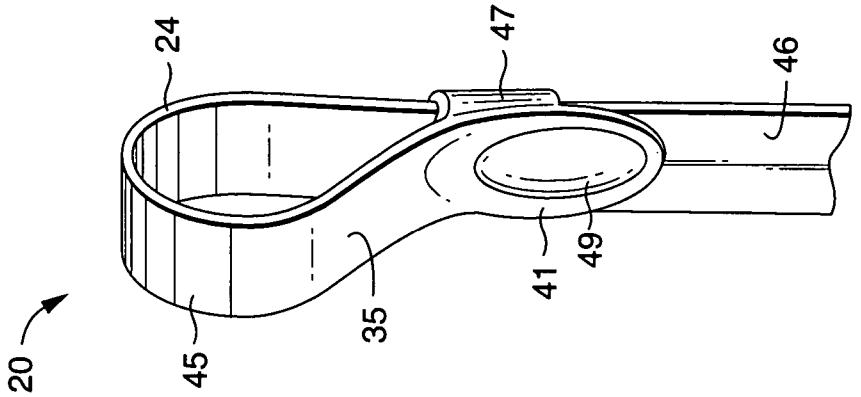

FIG. 8B

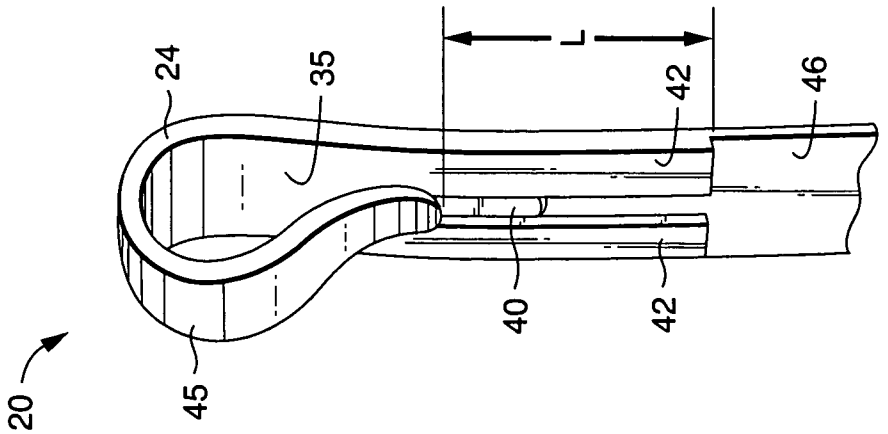

FIG. 8A

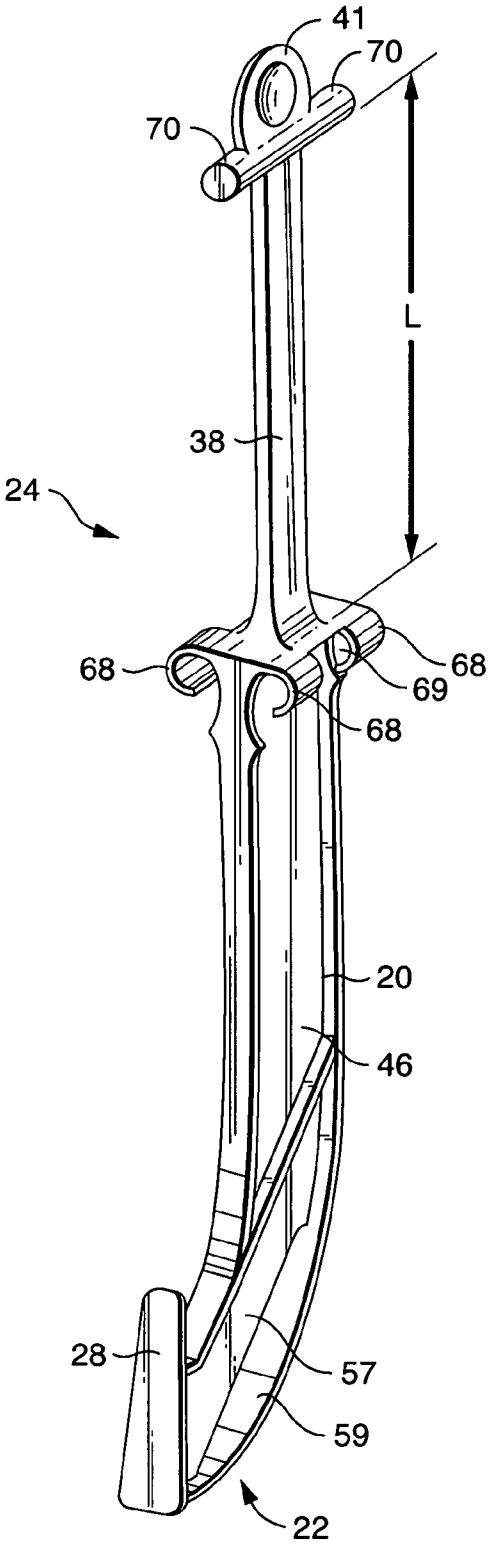
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FIG. 8D

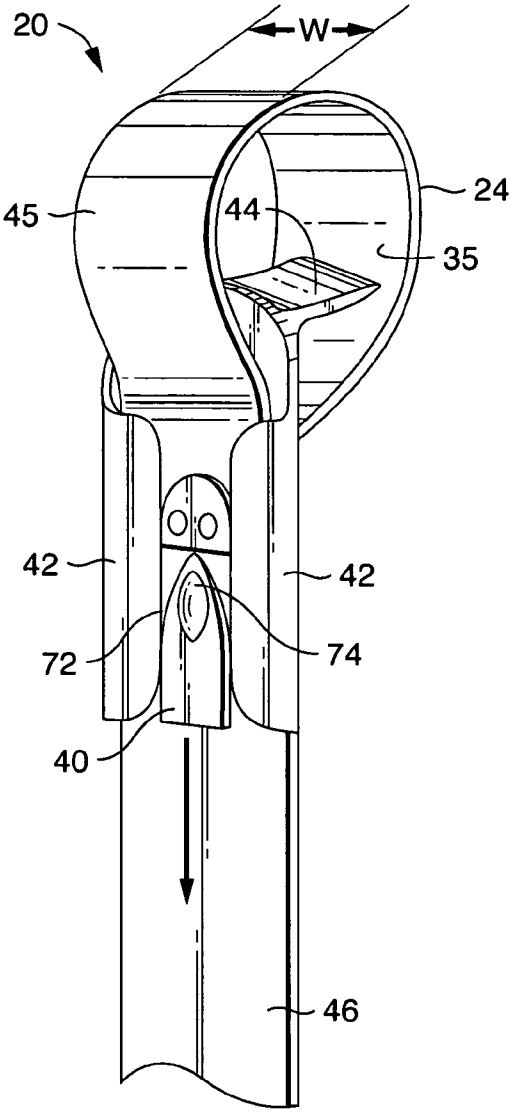
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FIG. 8E

OPTIONAL HANGING DISPENSER

BACKGROUND

Increasingly, consumers are using wet wipe products in addition to dry bathroom tissue for personal hygiene in the bathroom. However, most toilet paper roll holders are designed only to hold a single roll of dry bathroom tissue. The existing toilet paper roll holders are not designed for supporting a wet wipes dispenser. This can reduce or hinder using wet wipes within the bathroom if they cannot otherwise be located close to the toilet for easy use.

Various devices have been configured to allow for an additional wet wipe dispenser to mount with the existing designs for toilet paper roll holders. These devices usually take one of two approaches. One approach is to replace the existing toilet paper spindle in the toilet paper roll holder and then insert a custom dispenser that mounts with the existing holes in the toilet paper roll holder that the spindle's ends are inserted into. The custom dispenser usually has provisions for holding a dry tissue roll and a compartment for dispensing wet wipes. A drawback to this approach is that often the custom designed dispenser is large and/or unsightly. Many people do not like the look of the custom dispensers in the bathroom. Furthermore, the custom dispensers can be expensive. People who are unsure that they will like or use the custom dispenser often will not try the product due to the higher initial cost.

A second approach is to hang the wet wipes dispenser from the existing toilet paper holder by hooking the dispenser to the spindle. A problem with this approach is that refilling the toilet paper roll holder with a new tissue roll is cumbersome since you also have to remove and replace a second dispenser each time the toilet paper roll needs changing. Many consumers do not wish to bother with this annoyance and avoid the wet wipe dispensers with hooks that attach to the spindle. A further problem with using hooks to hang the wet wipes dispenser from the toilet paper spindle is that the hooks are permanently attached to the wet wipes dispenser such that the dispenser can only be used by hanging it from the toilet paper spindle.

Consumers who use wet wipes tend to be bifurcated between those desiring to place the wet wipes dispenser near the dry tissue roll and those preferring to place the wet wipes dispenser out of sight or hidden since they would feel embarrassed if other people knew they were using the product. As such, it is desirable that a wet wipes dispenser can be optionally located near the dry toilet paper roll, or suitable for using on flat surfaces instead of hanging, or convenient to hold and dispense the wet wipes.

In view of the above, a need exists for a dispenser that can be located or hung from a paper roll holder that is more convenient to use. A need also exists for a dispenser than can be used either in a hanging mode, or by placing on a flat surface.

SUMMARY

The inventors have discovered that by designing an auxiliary sheet-material dispenser that can be attached to the arms of a paper roll holder instead of the spindle, it is much easier to change the paper roll. Furthermore, if the hanging member of the sheet-material dispenser is removably attachable to the sheet-material dispenser, the sheet-material dispenser can be used in other locations with the hanging member removed.

Hence, in one aspect, the invention resides in a product for hanging from a paper roll holder having at least one arm, the product including a sheet-material dispenser and at least one hanging member for attaching the sheet-material dispenser to the at least one arm, and the hanging member forming a loop about the at least one arm to hold the sheet-material dispenser.

BRIEF DESCRIPTION OF THE DRAWINGS

The above aspects and other features, aspects, and advantages of the present invention will become better understood with regard to the following description, appended claims, and accompanying drawings in which:

FIG. **1** is a perspective view illustrating the sheet-material dispenser of the present invention hanging from a dry paper roll holder.

FIG. **2** is a front view illustrating the sheet-material dispenser in use.

FIG. **3** is a side view illustrating the hanging member attached to the sheet-material dispenser.

FIG. **4** is a side view of the hanging member.

FIG. **5** is a bottom view illustrating the bottom of the sheet-material dispenser and a tray holding a pair of hanging members.

FIG. **6** is a perspective view of the sheet-material dispenser and tray for use on a flat surface or as packaged for merchandising.

FIG. **7** is a top view illustrating the interior of the tray.

FIGS. **8**A-**8**E illustrates alternative hanging members.

Repeated use of reference characters in the specification and drawings is intended to represent the same or analogous features or elements of the invention in different embodiments.

Definitions

As used herein, forms of the words "comprise", "have", and "include" are legally equivalent and open-ended. Therefore, additional non-recited elements, functions, steps or limitations may be present in addition to the recited elements, functions, steps, or limitations.

As used herein, "sheet-material" is a flexible substrate, which is useful for household chores, cleaning, personal care, health care, food wrapping, and cosmetic application or removal. Non-limiting examples of suitable substrates for use with the sheet-material dispenser include nonwoven substrates; woven substrates; hydro-entangled substrates; air-entangled substrates; paper substrates comprising cellulose such as tissue paper, toilet paper, or paper towels; waxed paper substrates; coform substrates comprising cellulose fibers and polymer fibers; wet substrates such as wet wipes, moist cleaning wipes, moist toilet paper wipes, and baby wipes; film or plastic substrates such as those used to wrap food; shop towels; and metal substrates such as aluminum foil. Furthermore, laminated or plied together substrates of two or more layers of any of the preceding substrates are also suitable.

As used herein, "wet sheet-material" includes substrates that are either wet or pre-moistened by an appropriate liquid, partially moistened by an appropriate liquid, or substrates that are initially dry but intended to be moistened prior to use by placing the substrate into an appropriate liquid such as water or a solvent. Non-limiting examples of suitable wet substrates include a substantially dry substrate (less than 10% by weight of water) containing lathering surfactants and conditioning agents either impregnated into or applied to the substrate such that wetting of the substrate with water prior to use yields a personal cleansing product. Such substrates are disclosed in U.S. Pat. No. 5,980,931 entitled Cleansing Products Having A Substantially Dry Substrate, issued to Fowler et al. on Nov.

9, 1999. Other suitable wet sheet-materials can have encapsulated ingredients such that the capsules rupture during dispensing or use. Other suitable wet sheet-materials include dry substrates that deliver liquid when subjected to in-use shear and compressive forces. Such substrates are disclosed in U.S. Pat. No. 6,121,165 entitled Wet-Like Cleaning Articles, issued to Mackay et al. on Sep. 19, 2000.

DETAILED DESCRIPTION

It is to be understood by one of ordinary skill in the art that the present discussion is a description of exemplary embodiments only, and is not intended as limiting the broader aspects of the present invention, which broader aspects are embodied in the exemplary construction.

Referring now to FIGS. **1**, **2**, and **3**, one embodiment of the invention is shown. An auxiliary sheet-material dispenser **10** is hung from a paper roll holder **12** supporting a paper roll **14**. The paper roll holder **12** includes at least one arm **16**, but most often includes a pair of arms **16** and a removable spindle **18**. Various paper roll holders exist and they may be recessed partially into a wall, an integral assembly having a backing plate for mounting on a wall or other surface, separate posts as shown, or otherwise vary from the paper roll holder **12** illustrated in FIG. **1**. As used herein, the "arms" of the paper roll holder **12** comprise the structure surrounding an aperture that the spindle **18** is inserted into and supported by that typically extend some distance away from the surface the paper roll holder is mounted to. The arms **16** may be round, rectangular, arcuate or other cross-sectional shapes. In other embodiments of the paper roll holder **12**, the arms **16** may have a projection or stub shaft that is inserted into the core of the paper roll **14** thereby eliminating the spindle **18**.

The sheet-material dispenser **10** can be hung beneath the paper roll **14** by at least one hanging member **20**, but preferably a pair of hanging members **20** is used to support the sheet-material dispenser **10**. The hanging members **20** include a first end **22** that is removably attachable to the sheet-material dispenser **10** and a second end **24** having a loop **45** that is removably attachable to the paper roll holder's arms **16**. Since the sheet-material dispenser **10** is hung from the arms **16** of the paper roll holder **12**, the tissue roll **14** and/or paper roll spindle **18** can be removed and replaced without having to relocate or move the sheet-material dispenser **10**. This makes it much more convenient to change the paper roll **14** since the sheet-material dispenser **10** is not supported by the spindle **18**.

Referring now to FIGS. **3**, **4**, and **5**, more details of the hanging member **20** are shown. Each hanging member **20** includes the first end **22** that is removably attachable to the sheet-material dispenser's bottom **26**, and the second end **24** having a loop **45** that is removably attachable to the paper roll holder's arms **16**. The first end **22** can further include a tongue **28** and a locking tab **30** that together form a U-shaped channel. The locking tab **30** includes a projection **32** near the distal end. The tongue **28** can be inserted into a slot **34** in the sheet-material dispenser's bottom **26** and advanced within the slot until the projection **32** on the locking tab **30** snaps into an aperture **36** in the bottom **26** near the end of the slot **34**. The locking tab **30** and tongue **28** removably attaches the hanging member **20** to the sheet-material dispenser **10**. Thus, the hanging member **20** can be securely attached to the sheet-material dispenser **10** if it is desired to hang the sheet-material dispenser. If it is no longer desired to hang the sheet-material dispenser **10**, the locking tab **30** is flexible such that pulling on the hanging member **20** in the opposing direction of insertion will disengage the projection **32** from the aperture **36** allowing the tongue **28** to be slid out of the slot **34**. Alternatively, the locking tab **30** can be pried upwards to disengage the projection **32** allowing the first end **22** to be slid out of engagement with the sheet-material dispenser's bottom **26**.

The first end **22** of the hanging member **20** can be generally perpendicular to a body portion **46** of the hanging member in order to attach the hanging member to the sheet-material dispenser's bottom **26** while allowing a portion of the body portion **46** to rest adjacent a sidewall **27** of the sheet-material dispenser **10**. As such, the hanging members can comprise a right-hand **21** and a left-hand **23** hanging member having the body portion **46** and the first end **22** formed such that when each hanging member is attached to the right and left sides of the sheet-material dispenser **10**, a portion of the body portion **46** lies adjacent to the sheet-material dispenser's sidewall **27**. The right-hand **21** and left-hand **23** hanging members are mirror images of each other. Alternatively, the hanging member **20** can be a universal hanging member such that it can attach to either side of the sheet-material dispenser **10** as shown in FIG. **8**D.

Other methods of removably attaching the first end **22** of the hanging member **20** to the sheet-material dispenser **10** can be used. In addition to the specific tongue **28** and slot **34** described above, the tongue on the first end **22** can be oriented differently, and the slot can be located differently. For example, the slot **34** can extend into the sheet-material dispenser's interior such as a vertical slot extending towards the sheet-material dispenser's top that is located in the bottom of the sheet-material dispenser **10** for engaging a tongue **28** extending from the first end **22**. Alternatively, the first end **22** can be attached with hook and loop material, non-permanent adhesive materials such as 3M Command® adhesive strips, mechanical fasteners such as screws, by using pins and apertures, or by a light press fit. Alternatively, the hanging member **20** can be integrally attached to the sheet-material dispenser **10** by using a living hinge such that when not in use, the hanging member can be folded out of the way such as being placed adjacent to the sidewall **27** of the sheet-material dispenser. The living hinge can be perforated or weak enough such that the hanging member **20** can be torn away or removed from the sheet-material dispenser **10** if it is not needed. Thus, in various embodiment of the invention, the hanging member **20** can be provided with a means for removably attaching the first end **22** to a sheet-material dispenser **10** as discussed above and illustrated in the Figures.

Additionally, the hanging member **20** can be provided with a ratcheting hinge or pivot between the body portion **46** and the first end **22** such that the entire sheet-material dispenser can be rotated either up or down relative to the paper roll **14** for improved access to the sheet-material and the dispensing opening. The hanging member **20** can be attached to the sheet-material dispenser's sidewall **27**, bottom **26**, or even a top **54** of the sheet-material dispenser **10** depending on the desired placement of the sheet-material dispenser in relation to the paper roll **14**.

Referring now to the second end **24** of the hanging member **20**, the second end can include an elastomeric strap **38**, and a sliding button **40** having a grasping tab **41** that includes a thumb rest **37** and a finger rest **39** for grasping and pulling on the sliding button by the thumb and index finger of one's hand thereby stretching the elastomeric strap. A sliding button flange **43** on the sliding button **40** for insertion into a receiving channel **42**, located on an outward facing surface of the body portion **46**, secures the sliding button to the body portion after wrapping the elastomeric strap **38** about the arms **16**. The elastomeric strap **38** is especially useful to securely wrap around the arms **16** of the paper roll holder **12**, and to accom-

modate arms having vastly different geometric shapes and sizes. If desired, the thumb rest **37** can be relatively flat and the finger rest **39** can be concave.

The elastomeric strap **38** can tension the hanging member **20** to rest snuggly against the arms **16** such that an anti-rotation stop **44**, such as a flat upper surface on the second end **24** of the hanging member **20** extending perpendicular to the body portion **46**, can reduce or prevent the sheet-material dispenser **10** from swinging back and forth as the sheet-material dispenser is used. The flat upper surface of the anti-rotation stop **44** can reduce the rocking or swinging motion of the sheet-material dispenser **10** by bringing more surface area of the hanging member **20** into line contact with the arms **16**. If desired, the anti-rotation stop **44** can include a groove or a channel for mating with arms **16** having a rounded contour instead of a flat surface. The upper surface of the anti-rotation stop **44** can also be an elastomeric or flexible material to further assist in preventing slipping or movement of the hanging member **20** in relation to the arms **16** owing to a higher coefficient of friction. Alternatively, the elastomeric strap **38** can form the loop **45** about the arms **16** while leaving a gap between the anti-rotation stop **44** and the arms.

To secure the sheet-material dispenser **10** to the paper roll holder **12**, the elastomeric strap **38** and the sliding button **40** are wrapped about each arm **16**, forming a loop **45** and then the sliding button **40** is inserted into the receiving channel **42**, engaging the sliding button flange **43** with the receiving channel. In this manner, the sheet-material dispenser **10** can be easily and securely attached to the paper roll holder **12**, but readily removed by advancing the sliding button **40** out of the receiving flange **42** and unwrapping the elastomeric strap **38** from around the arms **16**.

The hanging member **20** is sufficiently long from the first end **22** to the second **24** and attached to the sheet-material dispenser in such a manner that the sheet-material dispenser **10** will not interfere with a large diameter paper roll **14**. Desirably, a clearance of about 1 inch or greater is provided between the sheet-material dispenser's sidewall **27** and a full size paper roll's lower surface. As such, the second end **24** and/or anti-rotation stop **44** should extend a distance, D, of approximately 3-4 inches above the sidewall **27** of the sheet-material dispenser **10** to ensure that the sheet-material dispenser **10** does not touch a typical toilet paper roll. Other diameter paper rolls, such as paper towels or shop towels may require a different distance depending on the roll's diameter when first placed into the paper roll holder **12**.

Desirably, the second end **24** is offset from the first end **22** by making the body portion **46** of the hanging member **20** J-shaped. The J-shaped body portion can serve to hold the sheet-material dispenser **10** away from a wall that the paper roll holder **12** is mounted on to prevent scratching, damaging, or banging on the wall by the sheet-material dispenser during use. Alternatively, the offset can be used to hold the sheet-material dispenser against the wall to minimize swinging. The offset distance between the center-line of the elastomeric strap **38** and the first end **22** removably attached to the sheet-material dispenser's bottom **26** can be adjusted as necessary to either increase the distance between the wall and the sheet-material dispenser or to decrease it.

The elastomeric strap **38** can be made of a suitable material having the ability to stretch to at least 1.25 times its original length, such as two, three, or four times its original length, and return to within about 1.1 times its original length or less when held extended for 1 minute. One suitable elastomeric material is a thermoplastic elastomer (TPE) stryrenic block copolymer compound known as DYNAFLEX G translucent series G6730, produced by GLS Corporation, having an office in McHenry, Ill. Such a material has a percent elongation as measured by ASTM method D412, Die C of 530%, a 100% Modulus as measured by ASTM method D412, Die C of 110 psi, a hardness of 30 Shore A as measured by ASTM method D2240, 10 second delay, a coefficient of friction (COF) of 2.3 as measured by ASTM method D-1894, and a tear strength as measured by ASTM method D142, Die C of 80 pli. Desirably, the TPE material has a value for the 100% modulus that is less than the value for its elongation %; more desirably the TPE material has a value for the 100% modulus that is less than ½ the value for its elongation % to improve its stretchiness. Desirably, the TPE material has high tear strength to prevent ripping while under tension such as from about 40 pli to about 300 pli. Other suitable elastomeric materials can include EPDM rubber, silicones, and polyurethanes.

The length, L, of the elastomeric strap **38** as illustrated in FIG. **8**D depends on the modulus of the material, the cross-sectional area of the elastomeric strap, and the circumference of the arms **16** of the paper roll holder **12**. In general, the length, L, of the elastomeric strap will be between about 1 to about 3 inches, such as about 1.5 to about 2.5 inches for use with a toilet paper roll holder. The length of elastomeric strap **38** can be selected such that the elastomeric strap is under tension when wrapped about the arms **16**, thereby holding the anti-rotation stop **44** firmly against the arm, or to be relaxed without being under tension, leaving a gap between the anti-rotation stop **44** and the arm. The width of the elastomeric strap **38** or a flexible strap **35**, W, can vary depending on how far out the arms **16** of the paper roll holder **12** extend from the support surface. In general, the width, W, of the strap will be less than about 1 inch, such as less than about 0.5 inch, or less than about 0.375 inch. In particular, for a hanging member **20** that can be used on both recessed and non-recessed paper roll holders, a strap width of about 0.375 inches or less is desirable. Preferably, the cross-sectional area of the strap is square, rectangular, or having at least one flat side as opposed to uniformly round. A square or rectangular strap is less likely to twist or roll with regard to the arms **16** of the paper roll holder **12**; especially, if the arms **16** are tapered.

Desirably, the elastomeric strap **38** or flexible strap **35** is formed from a material having a higher coefficient of friction (COF) such that the elastomeric strap is restrained from sliding or moving about the arms **16** of the paper roll holder **12** when in use. In various embodiments of the invention, the COF of the elastomeric strap **38** or of the flexible strap **35**, as measured by ASTM method D-1894, can be between about 0.2 to about 3.5, or between about 1 to about 3.5, or between about 2 to about 3.5.

Referring now to FIGS. **8**A-**8**E, different embodiments for the hanging member **20** are illustrated. In FIGS. **8**A, B, C, and E, only the second end **24** is illustrated. The first end of these embodiments can be similar to that illustrated for FIG. **4** or the hanging member **20** can otherwise be attached to the sheet-material dispenser **10**. In FIGS. **8**A, B, C, and E, different methods of adjusting the conference of the loop **45** at the second end **24** are illustrated. As such, the strap at the second end **24** does not necessarily need to be an elastomeric material that stretches and needs to only be a flexible material that can be wrapped around the arms **16** of the paper roll holder **12**.

Referring now to FIG. **8**A, the second end **24** includes a sliding button **40** attached to a flexible strap **35** that extends from the body portion **46** of the hanging member **20** and engages with a receiving channel **42** located on the body portion. The second end **24** tapers from the receiving channel **42** to the sliding button **40** as shown. The receiving channel is

relatively long, such as about 1 to about 5 inches, or about 1 to about 3 inches in length, in order to vary the circumference of the loop **45** formed when the sliding button **40** is inserted into the receiving channel **42**, enabling the hanging member **20** to fit differently sized paper roll holder arms **16**.

Referring now to FIG. **8**B, the second end **24** includes a sleeve **47** and a tab **41** attached to a flexible strap **35** of the hanging member **20** at the second end **24** for adjusting the circumference of the loop **45**. The tab can include a thumb depression **49** for improved grasping. The body portion **46** of the hanging member **20** is passed through the sleeve **47** to adjust the length of the flexible strap **35** to fit differently sized arms **16**. The second end **24** functions similar to a slip knot or cinch strap to snug the second end about the paper roll holder's arms **16**.

Referring now to FIG. **8**C, the second end **24** includes a plurality of evenly spaced holes **51** in the flexible strap **35**, and a post **53** attached to the body portion **46** of the hanging member **20** for insertion into one of the holes. The post **53** can include a tapered catch **55** extending perpendicular from the top of the post to prevent the flexible strap **35** from coming off of the post. The circumference of the loop **45** can be changed by selecting different holes to insert the post **53** through when attaching the hanging member **20** to the arms **16** to fit differently sized arms.

Referring now to the hanging member **20** illustrated in FIG. **8**D, the first end **22** contains a cutout **57** forming a leaf spring **59** on the bottom curved portion of the J-shaped body portion **46** of the hanging member **20**. The leaf spring **59** can be made from a flexible or elastic material and can act as a bumper or a shock absorber in the event that the sheet-material dispenser **10** would swing away from the wall the paper roll holder **14** is secured to during dispensing, and then swing back towards the wall in a pendulum motion inadvertently striking the wall. The leaf spring **59**, being flexible, would dampen or reduce the noise produced at any potential impact and help to prevent scratching or damaging the finish on the wall. Other means for absorbing impact of the sheet-material dispenser **10** can include a bumper located on either the sheet-material dispenser's bottom **26** or the hanging member **20**, and a foam or elastomeric material located on either the sheet-material dispenser's bottom **26** or the hanging member **20**. For example, an elastomeric material could be placed around the bottom perimeter of the sheet-material dispenser **10** to absorb impact energy and to reduce sliding or movement of the sheet-material dispenser when resting on a surface instead of hanging. If foam is used, it could be thick enough such it fills any gap between the wall and the sheet-material dispenser's bottom **26** where the foam is located when the sheet-material dispenser is hung from the paper roll holder **14**. The foam could be provided with adhesive on both sides to stick the sheet-material dispenser's bottom **26** to the wall if desired to further reducing swinging and/or banging during use.

In this embodiment, the hanging member **20** is a universal hanging member such that it can fit and be used on either side of the sheet-material dispenser **10** by engaging either slot **34**. To facilitate use on either side of the sheet-material dispenser, a pair of ears **68** separated by a gap **69** located on both sides of the body portion **46** of the hanging member **20** are provided. Each pair of ears **68** is adapted to receive a pair of protrusions **70** located on either side of a tab **41** connected to one end of an elastomeric strap **38** with the other end connected to the body portion **46**. In use, the first end **22** of the hanging member **20** is inserted into one of the slots **34** located on the sheet-material dispenser's bottom **26**. If the hanging member is inserted into the right-hand slot (as viewed from the sheet-material dispenser's front), then tab **41** is threaded up the inside of the paper roll holder's right arm **16** and wrapped over the arm, the elastomeric strap is then placed into the gap **69** and the protrusions **70** are placed into the ears **68** located on the right-hand side of the body portion **46** to secure the tab **41**, forming the loop **45** and securing the hanging member **20** to the arm **16**. If the hanging member is inserted into the left-hand slot (as viewed from the sheet-material dispenser's front), then tab **41** is threaded up the inside of the paper roll holder's left arm **16** and wrapped over the arm, the elastomeric strap is then placed into the gap **69** and the protrusions **70** are placed into the ears **68** located on the left-hand side of the body portion **46** to secure the tab **41** and forming the loop **45** securing the hanging member **20** to the arm **16**. As such, the hanging member **20** is a universal design since it can be used in either slot **34** located on the bottom **26** of the sheet-material dispenser, and the elastomeric strap **38** can be secured to either side of the body portion **46**.

Referring now to FIG. **8**E, the second end **24** includes a sliding button **40** attached to a flexible strap **35** that engages a receiving channel **42** located on the body portion **46**. The sliding button **40** and the receiving channel **42** are provided with a ratcheting mechanism **72** such that the sliding button may be advanced in only one direction that tightens the loop **45** and then stays in position after adjustment. Thus, the circumference of the loop **45** can be reduced by moving the sliding button **40** in the direction indicated by the arrow, and the sliding button will stay in position until a release **74** on the sliding button is depressed, thereby disengaging the ratcheting mechanism **72** and allowing the sliding button to be retracted in a direction opposite to the arrow.

Thus, in various embodiment of the invention, the hanging member **20** can be provided with a means for removably attaching the second end **22** to at least one arm **16** of a paper roll holder **14** as discussed within the specification and illustrated in the Figures. Additional means for removably attaching the second end **22** to at least one arm **16** of a paper roll holder **14** can include hooks located on the second end, tying the second end to the arm by using a cord or string, or adhesively attaching the second end to the arm with non-permanent adhesive.

Referring now to FIGS. **5**, **6**, and **7**, a removable tray **48** can be attached to the sheet-material dispenser's bottom **26**. The tray **48** can be sold with the sheet-material dispenser **10** and can include a pair of hanging members **20** such as a right-hand and a left-hand hanging member (**21**, **23**) that are initially not attached to the sheet-material dispenser **10**. The tray **48** can be thermoformed and include recessed areas **50** in which the hanging members can rest or snap into. The tray **48** can include a flange **52** that engages with the sheet-material dispenser's bottom **26** and sidewall **27** to removably attach the tray **48** underneath the sheet-material dispenser **10**. The sheet-material dispenser **10** can be used either with the tray **48** attached (FIG. **6**) or with the tray **48** removed such that the sheet-material dispenser's bottom **26** rests on the counter. Typically, the tray **48** will be attached to the sheet-material dispenser **10** when sold and then removed by the user to either hang the sheet-material dispenser or to use the sheet-material dispenser on a counter. The sheet-material dispenser's bottom **26** or a portion thereof such as a ¼ inch wide strip around the perimeter of the bottom can be an anti-slip, foam, or elastomeric material to reduce movement of the sheet-material dispenser on surfaces or to reduce any impact of the sheet-material dispenser with a wall when hanging.

The hanging member **20** can be used with many different kinds of sheet-material dispensers **10**, but desirably the sheet-

material dispenser is designed to house a plurality of individual sheets that are pre-moistened with a cleansing solution to function as wet wipes. Referring now to FIGS. **1**, **2**, **5**, and **6**, the sheet-material dispenser **10** can include a top **54**, the bottom **26**, and the sidewall **27**. Desirably, the top **54** includes a main-lid **56**, a mini-lid **58**, a push button **60**, and a dispensing orifice **61**. The sidewall **27** and the bottom **26** form a lower tub **63** of the sheet-material dispenser **10**. The main-lid **56** can be hingably attached to the sidewall **27** by a pair of hinges **62**. The main-lid **56** is secured in the closed position by a latch **64**. When the latch **64** is unfastened, the main-lid **56** can be opened to expose the entire top of the tub **63** to replenish the sheet-material dispenser **10** with new wet wipes. The sheet-material dispenser **10** can be refilled without having to remove the sheet-material dispenser **10** from the paper roll holder **12** since the main-lid **56** is hinged away from the paper roll **14** and rotates downward or away from the paper roll **14**, improving access to the sheet-material dispenser's interior. Alternatively, the sheet-material dispenser can be removed from the hanging members **20** to refill leaving the hanging members attached to the paper roll holder **14**, or the entire assembly can be removed from the paper roll holder **12** by unfastening the elastomeric straps **38**.

To dispense a wet wipe from the sheet-material dispenser **10**, the push button **60** is depressed and a biasing spring rotates the mini-lid **58** to an open position, thereby exposing an exposed portion of the wet wipe. The rear edge of the mini-lid **58** can includes a pair of posts or projections that mate with a pair of apertures in the main-lid **56** for rotational movement. Desirably, the sheets forming the wet wipes are folded, perforated, interfolded, or interrelated such that withdrawing one wipe partially withdraws a portion of the next sheet. Desirably, the mini-lid **58** rotates downward or away from the paper roll **14**, such that the exposed portion of the wet wipe is above the mini-lid **58** when the mini-lid is in the open position with the sheet-material dispenser **10** hanging from the paper roll holder **12** as best seen in FIG. **2**. By having the mini-lid **58** rotate down and away from the main-lid **56**, it is less likely to interfere with withdrawing the wet wipe and makes it easier to find and grab the exposed portion of the wet wipe.

The sheet-material dispenser **10** can be co-molded from two different materials such as a hard plastic and a softer TPE material. As such, sealing areas between the main-lid **56** and tub **63**, and/or between the mini-lid **58** and main-lid **56** can have a gasket formed by the TPE material if desired to enhance moisture retention of the sheet-material dispenser **10**. The hanging member **20** can also be co-molded with the body portion **46** and the sliding button **40** being molded in a hard plastic and the elastomeric strap **38**, the upper surface of the anti-rotation stop **44**, and the leaf spring **59** molded from the TPE material. The push button **60** can be co-molded with the sides of the push button formed from TPE material for easier use.

The dispensing orifice **61** can be formed as a slit in a dispensing panel **66** located beneath the mini-lid **58** that is formed from flexible or elastic material. The narrow slit in the dispensing panel **66** can help to retain moisture in the sheet-material dispenser **10**, securely hold the exposed portion of the wet wipe in place and make it easier to reach into the sheet-material dispenser to retrieve the next wipe should the pop-up functionality fail since the elastomeric or flexible material can be readily deformed and then spring back into shape.

Suitable materials for forming the dispensing panel are disclosed in U.S. Pat. Nos. 6,766,919; 6,592,004; and 6,523,690. The dispensing panel **66** can be a flexible rubber-like sheet, the relevant material properties can be described in terms of the hardness, stiffness, thickness, elasticity, specific gravity, compression set, and any combination thereof. More specifically, the Shore A hardness (as measured by ASTM D2240) of the flexible, rubber-like sheet or material can be about 100 or less, more specifically from about 20 to about 90, and still more specifically from about 40 to about 80, and yet more specifically from about 60 to about 70 Shore A. The Gurley stiffness of the flexible, rubber-like sheet or material (as measured by ASTM D 6125-97 "Standard Test Method for Bending Resistance of Paper and Paperboard") can be about 10,000 milligrams of force (mgf) or less, more specifically from about 100 to about 8000 mgf, more specifically from about 200 to about 6500 mgf, and still more specifically from about 300 to about 1500 mgf. The thickness of the flexible, rubber-like sheet can be about 10 mil or greater, more specifically from about 10 mil to about 110 mil, and still more specifically from about 35 mil to about 60 mil. The elasticity of the flexible rubber-like material or sheet, as characterized by the tensile stress at 100 percent elongation and measured in accordance with ASTM D412 "Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers", can be about 10 megapascals (MPa) or less, more specifically from about 0.1 to about 7 MPa, and still more specifically from about 0.5 to about 2.5 MPa. The flexible rubber-like sheet can have a specific gravity (per ASTM D792) of about 0.80 to 1.21, more specifically 0.88 to about 1.10, and still more specifically from about 0.90 to about 1.0. The flexible rubber-like sheet can have a compression set (per ASTM 395B) of (at room temperature/at 70 degrees C.) about $^{8}/_{30}$ to $^{40}/_{120}$ and more specifically $^{15}/_{45}$ to about $^{28}/_{100}$.

An example of suitable dispensing panel materials include thermoplastic elastomeric (TPE) materials that can be used to provide acceptable dispensing. Materials which can be employed include (but are not limited to): any of the family of styrenic-based TPE's (i.e. styrenic block copolymer compounds); styrenic-based TPE's containing rubber modifiers such as Kraton®, Santoprene®, or other rubber modifiers; Kraton®; Santoprene®; specialty copolymers, such as ethylene-methyl acrylate copolymers (e.g. EMAC® of the Eastman Chemical Company); thermoset rubbers; polyurethane; alloys; amides; engineering TPE's; olefinic-based; olefinic vulcanizates; polyester-based; polyurethane-based. One such material for the flexible dispensing panel could be that manufactured by the GLS-Corporation of McHenry, Ill., USA and known as resin #G2701. The G2701 material is one of the resins in the product family of TPEs. G2701 is a styrenic-based material and is in the family of Styrenic block copolymer compounds. Some particular properties of the G2701 can be: specific gravity of 0.090 g/cc (per ASTM D792); hardness (Shore A durometer) of 68 (ASTM D2240); and compression set of 24% at room temperature, 96% at 70 deg. C. (per ASTM 395B). Another similar material is known as G2755 and also sold by GLS Corporation. In addition, a lubricant (e.g., wax) can be added to lower the coefficient of friction of the continuous slit which can benefit injection molding, wet wipes dispensing, and physical handling of the flexible orifice. The G2701 TPE resin with ¼% wax additive sold by GLS Corporation and known as #LC217-189 can be used. Since the above materials are flexible and rubber-like, they can be suitable for forming the flexible strap **35** to make the loop **45** in the embodiments illustrated in FIGS. **8**A, **8**B, **8**C, and **8**E.

The hanging member **20** in the preceding embodiments has been shown in combination with a sheet-material dispenser **10** and intended for wet wipes and co-located beneath a dry toilet paper roll. However, the sheet-material dispenser **10** and the hanging member **20** can be used in combination with

a paper towel holder for kitchen applications. Attachment to other paper roll holders is also contemplated such as holders for shop towels. Alternatively, the sheet-material dispenser **10** can be used with another sheet-material instead of wet wipes, or the hanging member **20** can be used to support an auxiliary dry paper roll by attaching two hanging members to a second spindle.

Other modifications and variations to the present invention may be practiced by those of ordinary skill in the art without departing from the spirit and scope of the present invention, which is more particularly set forth in the appended claims. It is understood that aspects of the various embodiments may be interchanged in whole or part. All cited references, patents, or patent applications in the above application for letters patent are herein incorporated by reference in a consistent manner. In the event of inconsistencies or contradictions between the incorporated references and this application, the information present in this application shall prevail. The preceding description, given by way of example in order to enable one of ordinary skill in the art to practice the claimed invention, is not to be construed as limiting the scope of the invention, which is defined by the claims and all equivalents thereto.

We claim:

1. A product for hanging from a paper roll holder comprising at least one arm, the product comprising a sheet-material dispenser and at least one hanging member for attaching the sheet-material dispenser to the at least one arm, the hanging member forming a loop about the at least one arm to hold the sheet-material dispenser, wherein a length of the hanging member is adjustable so that a circumference of the loop may be varied;

wherein the hanging member has a first end, a second end, and a body portion and wherein the loop is formed from a strap that is removably attachable to the body portion;

wherein the second end comprises an elastomeric strap forming the loop; and

wherein the second end comprises a sliding button attached to one end of the elastomeric strap and a receiving channel attached to the body portion of the hanging member for engaging with the sliding button to secure the sliding button in the receiving channel forming the loop in the elastomeric strap.

2. The product of claim **1** wherein the hanging member has a first end, a second end, and a body portion, and wherein the first end is removably attachable to the sheet-material dispenser.

3. The product of claim **2** wherein the first end comprises a tongue and a locking tab.

4. The product of claim **3** wherein the locking tab comprises a projection.

5. The product of claim **3** wherein the sheet-material dispenser comprises a bottom and the bottom comprises a slot for receiving the tongue.

6. The product of claim **4** wherein the sheet-material dispenser comprises a bottom and the bottom comprises a slot for receiving the tongue and an aperture for receiving the projection on the locking tab.

7. The product of claim **3** wherein the first end comprises a cutout in a body portion of the hanging member forming a leaf spring.

8. The product of claim **1** wherein the second end comprises a sliding button attached to the strap and a receiving channel located on the body portion securing the sliding button in the channel forming the loop the strap and a ratcheting mechanism for indexing the sliding button in the receiving channel in one direction unless a release located on the sliding button is depressed.

9. The product of claim **1** wherein the hanging member has a first end, a second end, and a body portion, the first end is removably attachable to the sheet-material dispenser, and a circumference of the loop is adjustable.

10. The product of claim **9** wherein the first end comprises a tongue and a locking tab.

11. The product of claim **9** wherein the second end comprises an elastomeric strap forming the loop.

12. The product of claim **10** wherein the second end comprises an elastomeric strap forming the loop.

13. The product of claim **11** wherein the second end comprises a sliding button attached to one end of the elastomeric strap and a receiving flange on the body portion for engaging with the sliding button to secure the sliding button forming the loop in the elastomeric strap.

14. The product of claim **12** wherein the second end comprises a sliding button attached to one end of the elastomeric strap and a receiving flange for engaging with the sliding button located on the body portion to secure the sliding button forming the loop in the elastomeric strap.

15. The product of claim **1** wherein the hanging member comprises a first end, a second end, and a body portion, and the body portion is J-shaped such that the first end and the second end are offset from each other.

16. The product of claim **1** wherein the second end comprises an anti-rotation stop extending perpendicular to the body portion which brings more surface area of the second end into contact with the arm.

17. The product of claim **16** wherein the upper surface of the anti-rotation stop that contacts the arm comprises a thermoplastic elastomer.

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